

## **REMARKS**

### **Status of the Claims**

- Claims 1, 3, 5-9, 19, 21, and 23-30 are pending in the Application.
- Claims 10-18 and 31-33 are withdrawn from consideration
- Claims 1, 3, 5-9, 19, 21, and 23-30 are rejected by the Examiner.
- Claims 1 and 19 are amended.

### **Prior Claim Rejections Pursuant to 35 U.S.C. §112**

Claims 1, 3, 5-9, 19, 21, and 23-27 stand rejected under 35 U.S.C. §112, first paragraph as failing to comply with the written description requirement. The Office Action dated 11/30/2006 states that the claimed subject matter in Claims 1, 19, and 25 reciting “shedding XML values from the binary large object” is new because it is not supported by the instant specification.

The Advisory Action dated 2/13/2007 indicates that the amendments made by Applicant on January 30, 2007 are entered. The Advisory Action also states:

“In reply to applicant's arguments against 35 U.S.C. § 112, first paragraph rejection, the examiner points out that the claimed features as recited on record "shredding the input XML values stored as binary large objects in an XML column of the primary table" Is different from the claimed "shredding XML values from the binary large object and storing the values into the primary XML index”(see instant specification: paragraph 0005). Mainly the former quoted sentence only has one shredding operation and the later quoted sentence clearly contains shredding and storing operations.

Furthermore, the argued: "SELECT \* FROM BLOB-@xml-with-path Expression INSERT INTO @ ShreddedRows" (see Instant specification: paragraph 0059) is clearly different from the claimed "shredding the input XML value stored as binary large objects in an XML column of the primary table", because a "SELECT.. ." operation is not a shredding operation.

In addition, even in the instant "SELECT ..." statement, the BLOB has an XML

Value "@xmlcol ..." attached. Thus, the claimed "shredding XML values from the binary large object" is new matter, since it is lacking support of the instant specification." (Advisory Action, 2/13/2007).

Applicant respectfully traverses the 35 U.S.C. §112 rejection. Applicant amends independent Claims 1 and 19 to remove the phrase "and storing the values into the primary XML index". Applicant notes that the claimed phrase "populating... the primary XML index" is clearly disclosed in paragraphs 0005, 0015, and 0039 and is represented in code in paragraph 0059. Applicant also amends Claims 1 and 19 to comport more closely with the wording of paragraph 0005 of the as-filed specification. However, Applicant respectfully disagrees that "shredding XML values from the binary large object" is new matter. Applicant submits that this last phrase is supported in the as-filed specification.

Applicant notes that one aspect of the invention includes shredding XML values that are stored as Binary Large Objects (BLOBS) in the primary table. In another aspect of the invention, the XML values are obtained from the BLOB by shredding the BLOB itself. As indicated in paragraph 0059:

"[0059] In one embodiment of the invention, implementation of the XML index may be facilitated via the use of a table-valued function which may be created with the following data definition language statements.

```
CREATE FUNCTION SHRED_XML (
    @xmlcol XML)          -- XML column on which to
execute
RETURNS @ShreddedRows TABLE (
    XID          OrdPath,    -- node id
    NID          int,        -- the name ID value
    TID          int,        -- the type ID value
    VALUE        sql_variant, -- (small) value column
    LVALUE       nvarchar(max), -- large value column
    HID          int         -- tokenized path
) AS
BEGIN
    DECLARE      @Temp TABLE (
```

**DOCKET NO.:** MSFT-2160/304750.01  
**Application No.:** 10/693,750  
**Office Action Dated:** N/A

```
XID OrdPath, NID int, TID int, VALUE sql_variant,  
LVALUE nvarchar(max), ...)  
  
INSERT      INTO @Temp  
SELECT      *  
FROM        Rowset-generated-by-shredding-XML-  
BLOB-@xmlcol-with-  
path-expression-and-max-level-applied  
  
INSERT      INTO @ShreddedRows  
SELECT      XID, NID, TID, VALUE, LVALUE, HID FROM  
@Temp  
RETURN  
END"  
(Paragraph 0059)
```

Applicant believes that an explanation of the code in the above paragraph 0059 of the as-filed application, as perceived by one of skill in the art, is useful in addressing the 35 U.S.C. §112 rejection to explain why there is no new matter in the present claims.

In the paragraph 0059, the DECLARE statement declares a temporary table called @temp. The “INSERT INTO @temp ...” statement is executed first and it inserts rows into the temporary table @temp from the output of the table-valued function rowset-generated-by-shredding-XML-BLOB-@xmlcol-with-path-expression-and-max-level-applied. This function accepts an XML value @xmlcol as input and shreds it into a set of rows in which each row contains information about an XML node in the input XML value @xmlcol. In the database, the XML value is stored as a binary large object so that shredding into the rowset using the function rowset-generated-by-shredding-XML-BLOB-@xmlcol-with-path-expression-and-max-level-applied can be done efficiently at runtime. The other INSERT statement “INSERT INTO @ShreddedRows” copies the rows and the appropriate columns from the temporary table @temp into the table-valued variable @ShreddedRows to be returned as the output of the function SHRED\_XML. This output is used to populate the node table, also known as the primary XML index. The illustrated function SHRED\_XML follows the syntax and the semantic rules allowed by the ISO standard on the SQL language (ISO/IEC 9075-2:2003 “Information technology -- Database languages -- SQL -- Part 2: Foundation (SQL/Foundation)”).

**DOCKET NO.:** MSFT-2160/304750.01  
**Application No.:** 10/693,750  
**Office Action Dated:** N/A

Thus, the code of paragraph 0059, taken as a whole, is understood by those of skill in the art as describing, among other things, the shredding of XML values from the binary large object and populating the primary XML index. Applicant respectfully submits that “shredding XML values stored as the binary large object” as recited in amended Claims 1 and 19 is not new matter. Accordingly, Applicant respectfully requests withdrawal of the previously asserted 35 U.S.C. §112 rejection and reconsideration of all pending claims.

Arguments concerning the 35 U.S.C. §103(a) rejections of Claims 1, 3, 5-9, 19, 21, 23-24, and 25-27 were presented in the response dated January 30, 2007.

Respectfully submitted,

Date: April 13, 2007

/Jerome G. Schaefer/

---

Jerome G. Schaefer  
Registration No. 50,800

Woodcock Washburn LLP  
Cira Centre  
2929 Arch Street, 12th Floor  
Philadelphia, PA 19104-2891  
Telephone: (215) 568-3100  
Facsimile: (215) 568-3439